Indian Head Naval Surface Warfare Center NPL

Size: 3,423 acres (923 acres at Stump Neck Annex)
Mission: Conduct research, development, and production of rocket and torpedo propellants and explosives
HRS Score: 50.00; placed on NPL in February 1995
IAG Status: None
Contaminants: Waste propellants, explosives, acids, paints, solvents, heavy metals, low-level radioactive material, TCE, and industrial wastewater
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $8.6 million
Estimated Cost to Completion (Completion Year): $56.8 million (FY2013)
Final Remedy in Place or Response Complete Date for All Sites: FY2013

Indian Head, Maryland

Restoration Background

This installation produces and handles complex chemicals to accomplish its mission. Lead, silver, and mercury are the primary contaminants of concern. The acreage at the Stump Neck Annex was not included in the National Priorities List (NPL) listing.

A Preliminary Assessment (PA) in FY83 identified 29 potential CERCLA sites. A supplemental PA in FY92 identified an additional 17 potential sites, 2 of which were recommended for no further study. The installation has conducted Site Inspections at 19 sites. Two more sites were identified in FY94. Silver-contaminated soil was removed at the X-Ray Building, and soil in two swales was remediated. A Site Characterization Report was completed for Building 766, where soil is contaminated with mercury. An Engineering Evaluation and Cost Analysis for the Removal Action was completed. A weir was installed at the discharge point of a pond to prevent migration of mercury farther downstream. In FY91, the U.S. Fish and Wildlife Service completed a study of mercury levels in fish from Mattawoman Creek, which receives runoff from a large part of the facility. The study concluded that the concentration of mercury in fish at the installation was comparable to typical concentrations found in fish throughout Maryland.

In FY95, the installation removed soil at the X-Ray Building site and published the Removal Action report. The installation also finished excavating the mercury-contaminated soil at Building 766. Biomonitoring of the downstream pond indicated that the mercury had no adverse effect on fish. The installation is also removing trichloroethene (TCE) and treating TCE-contaminated groundwater at Site 57 (Building 292).

The installation formed a technical review committee in FY93 and converted it to a Restoration Advisory Board (RAB) in FY95. The installation has prepared a community relations plan and established an information repository.

During FY96, the installation initiated Remedial Investigation/ Feasibility Study (RI/FS) activities for 14 sites, completed fieldwork for the removal of lead-contaminated soil at Site 56, and initiated project closeout reports for the site.

In FY97, soil vapor extraction (SVE) pilot studies were completed at Site 57 to determine the feasibility of using SVE technology at the site. Pilot studies indicated that site conditions will inhibit the application of SVE for the soil media. A Removal Action was planned to address the immediate threat of groundwater contamination at the site, while an RI/FS will be conducted to further evaluate the conditions of the site and other means for final Remedial Action. RI fieldwork was initiated for five other high priority sites (Sites 12, 39, 41, 42, and 44). A draft RI report has been completed and is currently under review by the Navy and EPA. A work group has been established for document review to ensure that all issues and solutions are understood and agreed to by all parties.

FY98 Restoration Progress

RIs are near completion for Sites 12, 39, 41, 42, and 44. The contractor mobilized to perform a Removal Action at Site 57. This Removal Action will line and restore several hundred feet of sewer piping, which runs through a TCE-contaminated plume. The project will use an alternative means of pipe rehabilitation, which will provide a less costly alternative to sewer replacement. The RI contract for Site 57 was awarded, work plans were completed, and the contractor was scheduled to start work after the Removal Action at the site is completed. The work plans for RIs at Sites 47 and 53 were completed, and work is scheduled to begin when funding becomes available.

A project to convert hard copies of the administrative record to electronic format is near completion. This effort will reduce the volumes of paper records to two CDs, increasing the availability of administrative records to the public and providing a useful management tool. Each member of the RAB will have a copy of the CDs. A Tier 2 partnering group recognized that Navy partnering efforts with EPA and the Maryland Department of the Environment are not immediately necessary.

Plan of Action

- Initiate official partnering efforts with EPA in FY99
- Finalize draft RI reports for Sites 12, 39, 41, 42, and 44 in FY99
- Complete Removal Action at Site 57 in FY99
- Complete RI fieldwork and report for Sites 47, 49, and 53 in FY99
- Initiate FSs for Sites 12, 39, 41, 42, and 44 to evaluate alternative final remediation techniques in FY99
- Develop work plan for RI at Sites 11 and 21 in FY99
- Complete Records of Decision and develop Remedial Designs for Sites 12, 39, 41, 42, and 44 in FY00
- Begin Remedial Action at Sites 39 and 41 in FY00
- Initiate FSs for Sites 47, 49, and 53 in FY00
- Continue RI/FSs for Sites 11 and 21 in FY00

FY99 Funding by Phase and Relative Risk